

## Abstract

In known units, a shaped sliding surface composed of elliptical portions results from two different equations. The shaped sliding surfaces that can be generated by means of the equations are not optimal in terms of the function of the unit.

5            In the pumping unit of the invention, the function of the unit is improved because the equations are modified and include adaptable parameters, so that by adaptation of the parameters, the shaped sliding surface can be adapted in portions optimally to the requisite function in that particular region of the shaped sliding surface, for instance the function of generating an underpressure or an overpressure.

10           According to the invention, it is proposed that the course of the radii of the elliptical portions corresponds, at least in portions, to one of two equations that differ from the prior art.

(Fig. 2)